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TITLE: PRODUCTION OF SUPERELASTIC SPRING

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INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To develop the excellent superelastic spring having a wide straight elastic region by forming an Ni-Ti superelastic alloy wire by final cold working at a specific reduction ratio to a spring and subjecting this spring to a heat treatment under specific temp. conditions.

CONSTITUTION: The Ni-Ti alloy wire having 50.5 to 51.5 or 49.5 to 51.5 ratio of Ni:Ti by atomic % and contg ≤1% in total of one or ≥2 kinds among Fe, Co, Cr, V, Pd and Al is worked at 40 to 45% final cold reduction ratio and is then

formed to the spring. This Ni-Ti alloy spring is heat treated at 200 to 450°C in the atm. The excellent superelastic spring having the large threshold shearing strain of the straight elastic region and the wide straight elastic region is thus obtd.

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